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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,498	05/10/2001	Gary D. Jerdec	71163	7129

7590

09/27/2004

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EXAMINER

AFTERGUT, JEFF H

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/852,498

Applicant(s)

JERDEE ET AL.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smedberg (US 3,551,231) in view of Sands (US 3,390,035) and Andrusko (US 5,182,162).

Smedberg suggested that it was known to join a primary backing of a tufted carpet to a secondary backing with a resin which was of a hot melt type. The reference suggested that the adhesive was applied upon the tufted structure 10 with an application roller 12 and after application of the hot melt, the adhesive coated primary backing was passed through a nip between rollers 24 and 26 along with a secondary backing 22 to attach the secondary backing to the primary backing of the tufted carpet. The reference suggested that for the adhesive that a variety of adhesive compositions would have been useful for the operation where the adhesive can consist only of a polymeric binder resin wherein such included the use of ethylene/acrylate copolymers as the binder resin (see column 3, lines 25-36). The reference failed to teach that one skilled in the art would have extruded hot melt composition (rather than using the roller applicator for attachment of the secondary backing to the primary backing). Additionally, the reference was silent as to the use of the specified ethylene/acrylate copolymer useful in the operation (i.e. it did not specify ethylene methyl acrylate copolymer as the useful binder).

The reference to Sands suggested that one skilled in the art at the time the invention was made would have known that as an alternative to the use of a roller applicator for a hot melt to a primary backing (where the primary backing was to be joined to a secondary backing as the arrangement was passed through a roller nip arrangement) it was known to supply the hot melt adhesive from an extruder, see column 4, lines 43-49. the reference suggested that extrusion coating was an alternative to roller coating of the primary backing with the hot melt. Applicant is advised that where, as here, two alternatives were known for their same function an express suggestion of the desirability of the substitution of one for the other is not needed to render such substitution obvious, see In re Fout, 213 USPQ 532, In re Siebentritt, 152 USPQ 618. the combination nonetheless, failed to expressly state that the binder resin would have been an ethylene methyl acrylate copolymer.

The reference to Andrusko suggested that it was known at the time the invention was made to laminate a self bonded nonwoven to a layer of thermoplastic net like webbing with a molten adhesive material which was supplied from an extruder in the formation of a composite laminate which was suitable for a primary backing of a carpet, see column 13, line 19-63, column 15, lines 22-41. the reference to Andrusko suggested that a suitable adhesive material which was dispensed from the melt extruder to coat the web was an ethylene-methyl acrylate copolymer, see column 13, line 38-43. the conditions of laminating with the nip rollers included cooling one of the rollers to between 60-75 degrees F as well as the use of pressure of 25-200 lbs/linear inch. The reference did state that a secondary backing was subsequently laminated

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upon the laminated composite (which was used as the primary backing for the tufted carpet), however there is no reason to believe one skilled in the art would not have utilized the same adhesive which was used to join the primary backing together to coat the same to attach the secondary backing. Additionally, note that the reference to Smedberg suggested that those skilled in the art would have understood that ethylene/acrylate resins alone would have been suitable for joining the secondary backing to the primary backing of the tufted carpet (see the discussion above). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ ethylene methyl acrylate copolymer to join a primary backing to a secondary backing in a carpet as such a resin was suggested by both Smedberg as well as Andrusko and wherein one skilled in the art would have readily appreciated that the resin would have been extruded to supply the same to the laminating nip rollers as suggested by both Sand and Andrusko.

3. Claims 10,12-14, 16, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 2 further taken with Ballard.

The references as set forth above in paragraph 2 clearly suggested that one skilled in the art would have utilized a nip between two rollers to attach the primary backing to the secondary backing. The reference failed to teach that this laminating arrangement included the use of a soft roll and a hard chilled roll when laminating a heated adhesive between a primary backing and a secondary backing in carpet manufacture.

The reference to Ballard suggested that it was known to join a primary backing which included tufted fibers thereon to a secondary backing with a thermoplastic adhesive in a nip which included a chilled roller and a rubber covered roller. More specifically, the applicant is referred to column 4, lines 32-column 5, line 30 for a general description of the nip 13 formed by the water chilled roller 15 (held at 50-55 degrees F) and the rubber covered roller 14 which was 6 inches in diameter. The references clearly suggested that one skilled in the art at the time the invention was made would have incorporated a roller nip arrangement for pressing a secondary backing to a primary backing with a thermoplastic adhesive there between wherein the adhesive would have suitably been provided by extrusion coating the adhesive material. It would have been obvious to utilize a nip for forming a joint between a primary backing and a secondary backing in a tufted carpet as set forth above in paragraph 2 where such included a chilled hard roller and a soft rubber backing roller as suggested would have been useful by Ballard.

It should be noted regarding claim 13 and 19 that the reference to Andrusko suggested that the nip chilled roller would have been heated to less than 120 degrees

F. Additionally regarding claims 14 and 20 the reference to Andrusko suggested that the pressure would have been between 20-200 pounds/linear inch.

4. Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 3 further taken with Kerr.

The references as set forth above clearly suggested that a roller nip would have been provided to facilitate the lamination of the primary backing and the secondary backing in the manufacture of a carpet wherein the specific adhesive composition was used to join the backings together and wherein the specified composition would have been applied via extrusion. The references additionally suggested that one skilled in the art would have utilized a rubber covered roller and a hard chilled roll in the nip arrangement, however there is no specific disclosure as to the hardness of the rubber covering the roll in the nip arrangement. Kerr suggested that a roller nip would have included a hard roll 44 and a soft rubber roll 42 which was provided with a hardness for the rubber of between 40-80, preferably 50 Shore A (note that 40-80 Shore A is about 9-40 Shore D) so that the pressure on the carpet assembly would not have been too great as the assembly passed through the nip, see column 3, lines 58-64. It should be noted that Kerr was assembling layers which were extruded onto a tufted product. It should be noted that the specified size of the nip roller was suggested by Ballard. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a soft rubber roll as suggested by Kerr in the nip when joining a backing to a carpet (whereby the pressure applied would have been even and not

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excessive) in the process of laminating a backing to a carpet as suggested above in paragraph 3.

5. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 4 further taken with either one of PCT WO 98/38375 or PCT WO 98/38376.

While the reference to Kerr suggested that the amount of pressure applied would have been controlled with the use of the specified rubber coated roller and hard roller used in the roller nip arrangement, the reference did not expressly state that one skilled in the art would have utilize pressure within the specified ranges claimed or that the specific pressure applied would have expressly been determined through routine experimentation. In the art of making carpets, it was notoriously well known at the time the invention was made to feed the tufted primary backing, the extruded adhesive and the secondary backing into a nip formed by rollers as evidenced by either one of PCT '376 or PCT '375. The references to PCT '375 (page 48, lines 3-30, Figure 7) and PCT '376 (page 48, lines 3-30, Figure 7) both suggested that the nip would have included a chill roll and a second roll. The references both suggested that the size of the roller as well as the pressure applied by the roller would have been determined through routine experimentation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the amount of pressure applied by the nip roller arrangement in the process of joining a secondary backing to a primary backing in the manufacture of a carpet as suggested by either one of PCT WO 98/38375 or PCT WO

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98/38376 in the process of joining a secondary backing to a primary backing in carpet manufacture as set forth above in paragraph 4.

Response to Arguments

6. Applicant's arguments with respect to claims 9-20 have been considered but are moot in view of the new ground(s) of rejection.

The applicant essentially argues that the claims have been limited to the use of the specific resin composition for the adhesive in the process and that none of the prior art previously cited would have excluded the additional components in the adhesives utilized therein. The newly cited reference to Andrusko suggested that those skilled in the art would have utilized a ethylene methyl acrylate for the resin and the newly cited reference to Smedberg suggested that those skilled in the art of attaching a secondary backing to a primary backing would have understood that such resins (ethylene/acrylate copolymers) would have been useful alone (without other resin additives therein) for joining the backing components together. While the reference to Andrusko is forming the primary backing with the specified resin, there is no reason to believe that when one attached the secondary backing to the same that one would have utilized a different composition for the same and the reference to Smedberg suggested that such a composition would have been useful for attachment of a secondary backing upon a primary backing in a tufted carpet manufacture.

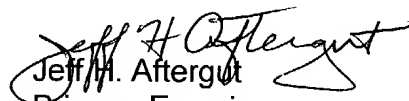
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
September 24, 2004